Efficacy of Preoperative (night before) Valerian on Day of Surgery Anxiety

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Significance

- Prevalence
- Increased pain perception
- Increased catecholamines

Aim

The aim of this study is to explore the efficacy of Valerian when administered the night before surgery to reduce anxiety in male and female patients.

Theoretical Framework

- Lazarus theory of emotion
- Theory of BZ receptor

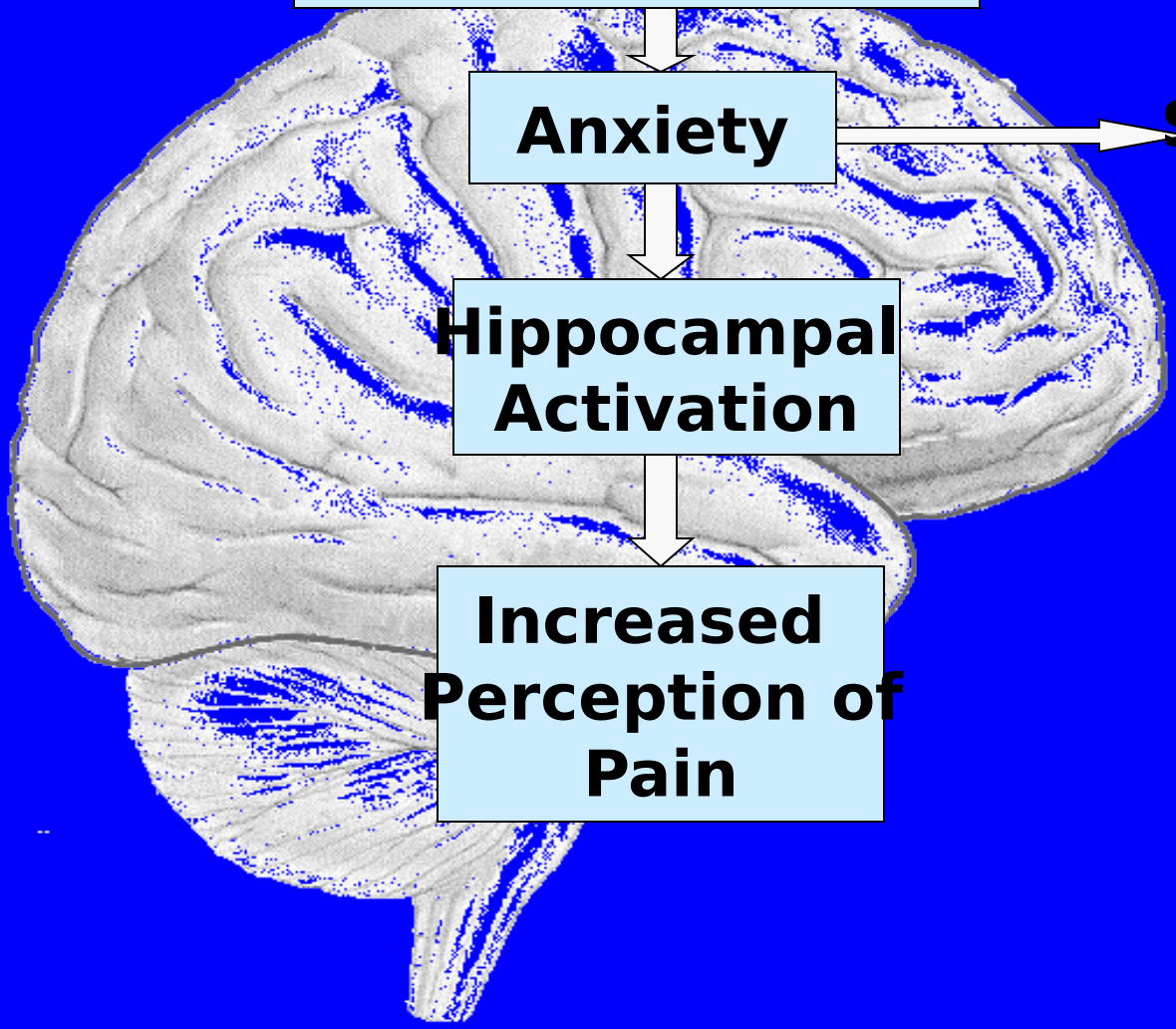
Anxiety producing event

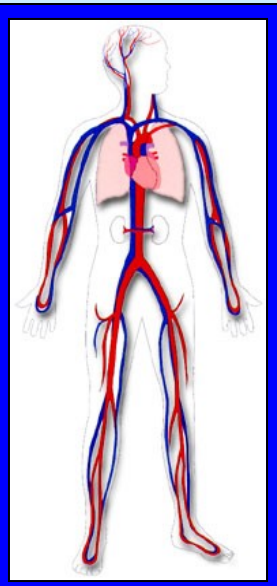
Cognition → Perception of anxiety ← Emotion

Anxiety → Sympathetic Response → Increased HR, RR, BP

Hippocampal Activation

Increased Perception of Pain





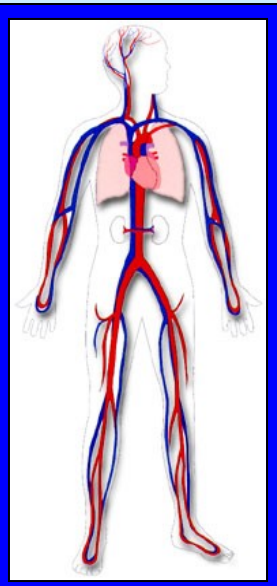
Anxiety producing event

Cognition → Perception of anxiety ← Emotion

~~Anxiety~~

Sympathetic Response

Increased HR, RR, BP



Hippocampal Activation

Increased Perception of Pain

Literature Review

- Ortiz, J., Nieves-Natal, J., & Chavez, P. (1999)
- Cropley, M., Cave, J., Middleton, R. (2002)
- Andreatini, R. Sartori, V., Seabra, M., & Leite, J. (2002)

Research Question

- Do patients who take valerian the night before surgery express a lower level of preoperative anxiety as measured by the State Anxiety Index and the Visual Analog Scale as compared to placebo?

Design

- Prospective experimental randomized placebo-controlled double blind study
- Pretest-posttest design
- Participants will be randomly assigned to one of two groups
  - intervention group (Valerian)
  - control group (Placebo)

Statistical Analysis

- A significant reduction in anxiety will be determined by analysis of SAI and VAS scores
- Two Analysis of Covariance

Power Analysis

- Alpha 0.025
- Effect size- medium (0.25)
  - Andreatini et al. (2002)
- Power- 0.80
- Sample size = 156

Instruments

- State Anxiety Index (SAI)
  - 20 questions
  - Measure state anxiety related to an event
  - Weighted on a Likert scale 1-4
  - Validity and reliability
    - Sesti, A. (2000)

Instruments

- Visual Analog Scale (VAS)
  - 100mm scale
  - Individuals asked to place mark on scale representing level of anxiety
  - Validity and reliability
    - Jensen, M., Miller, L., & Fischer, L. (1998)

Valerian Study
Data Collection Sheet

Subject #:_____ Age:_____ Gender:_____

Height:_____ Weight:_____ Race:_____

Scheduled surgery:_____

Proposed anesthetic plan:_____

Time:_____ Date:_____ Preintervention SAI score_____

Preintervention Visual Analog Scale:

Time:_____Date:_____

Time:_____ Date:_____ Postintervention SAI score____

Postintervention Visual Analog Scale: Time:_____ Date:_____

State Anxiety Index

	Not at all	Somewhat	Moderately So	Very Much
1. I feel calm	1	2	3	4
2. I feel secure	1	2	3	4
3. I feel strained	1	2	3	4
4. I feel stressed	1	2	3	4
5. I feel at ease	1	2	3	4
6. I feel upset	1	2	3	4
7. I am worrying over possible misfortunes	1	2	3	4
8. I feel satisfied	1	2	3	4
9. I feel frightened	1	2	3	4
10. I feel comfortable	1	2	3	4
11. I feel self-confident	1	2	3	4
12. I feel nervous	1	2	3	4
13. I am jittery	1	2	3	4
14. I feel indecisive	1	2	3	4
15. I am relaxed	1	2	3	4
16. I feel content	1	2	3	4
17. I am worried	1	2	3	4
18. I feel confused	1	2	3	4
19. I feel steady	1	2	3	4
20. I feel pleasant	1	2	3	4

Procedures

- Preoperative health history
- Recruitment
- Informed Consent
- Demographic data collection
- Complete baseline VAS and SAI
- Receive medication via random assignment from pharmacy
- Placebo/Valerian night before surgery between the hours of 2000-2200
- Preoperative reassessment of VAS and SAI in preoperative holding area on DOS

Questions